How to communicate with the [SMC Valve] by DeviceNet master

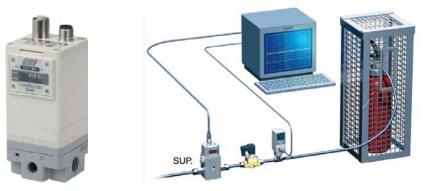
DeviceNet Master series:

DeviceNet Master series includes the USB interface(I-7565-DNM), PCI interface(PISO-DNM100U) and PAC module(I-8124W). They can represent an economic solution of DeviceNet application and be a DeviceNet master device on the DeviceNet network. They support Group 2 only Server and UCMM functions to communication with slave devices. They are popularly applied in the industrial automation, building automation, vehicle, marine, and embedded control network.



SMC ITVH-2000:

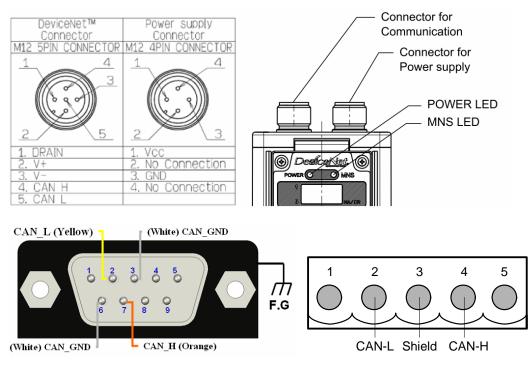
Series ITV electro-pneumatic and electronic vacuum regulators control air/vacuum pressure in proportion to an electric signal. They are light weight in design with a bright and easy to read LED display. The monitor output is available either as analog output or switch output. The ITV series is IP65 equivalent.



The pictures came from the manual and are belonged to the SMC.



Wire connection with the DeviceNet Master:



The users need to provide extra DC 24V power in M12-5PIN of the V+(pin-2) and V-(pin-3) for the DeviceNet module.

DNM Utility



The software utility includes various useful functions which help users to diagnose and access the DeviceNet devices. The users do not care about the protocol and configurations. The users could download from the website below.

ftp://ftp.icpdas.com.tw/pub/cd/fieldbus_cd/devicenet/master/dnm_utility/



The SMC ITV valve has been searched.
DeviceNet Master Utility V2.0
Board Edit About
Tela Board 1: 1
Active Board Finnware Ver : 250 Master ID : 0 Baud Rate : 125K bps Master Status : 0Kl
Remote Devices Configuration Remote Devices I/O Monitor
Searched Devices Devices in EEPROM
Device 1
Poll (Input 2 , Output 2)
<=>

The node #1(SMC valve) supports Poll connection. The Poll connection is with 2-byte input data and 2-byte output data which indicates the valve information.

The DNM Utility communicates with the SMC ITV valve :

Bowd Edit About Total Boards: Board No: Firmware Ver: 250 Matter ID: Baud Rate: 1/25K bps Master Status: DKI Remote Devices Configuration Remote Devices L/D Monitor	DeviceNet Master Utility ¥2.0
Board No: Image: Configuration Fermive Board Fermive Ver: [250] Master ID: 0 Baud Rate: [125k bps] Master Status: [Dk] Remote Devices Configuration Remote Devices I/D Monitor Image: Configuration Remote Devices I/D Monitor	Board Edit About
Remote Devices Configuration Remote Devices I/D Monitor	
	Active Board Finnware Ver : 250 Master ID : 0 Baud Rate : 125K bps Master Status : 0K1
I DeviceName: E/P Regulator ITV Connection Type Poll Envx Code: gg Input Data Bytes: Length: Input Data Bytes: Length: Input Data Bytes: Length: Imput Data Bytes: Length: </td <td>Remote Devices Configuration Remote Devices I/O Monitor</td>	Remote Devices Configuration Remote Devices I/O Monitor
DeviceName : E/P Regulator ITV Connection Type : Poll Error Code : Imput Data Bytes : Length : [2] Inst. ID Attr. ID Attr. ID Get Attribute FB/FF; 0000; Imput Data Bytes : Length : [2] Get Attribute Get Attribute Imput Data Bytes : Div ORD Imput Data Bytes : Length : [2] Get Attribute Imput Data Bytes : Get Attribute Imput Data Bytes : Get Attribute Imput Data Bytes : Imput Data Bytes : Get Attribute Imput Data Bytes : Imput Da	
	Input Data Bytes: Length: 2 Output Data Bytes: Length: 2 FB.FF: 00.00; Inst: Inst: <td< td=""></td<>

Here shows that the DNM_Utility has communicated the SMC valve.



